CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

No.- L-1/153/2019/CERC

CORAM:

Shri P. K. Pujari, Chairperson
Shri I. S. Jha, Member
Shri Arun Goyal, Member
Shri P. K. Singh, Member

Date of Order: 20th May 2022

In the matter of:

Approval of "Detailed Procedure for calculations of specific metrics for Key Performance Indicators" under Regulation 32 of the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2019

Order

Commission notified the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2019 (hereinafter referred as "RLDC Fees & Charges Regulations 2019") on 05th April 2019, for the control period from 01st April 2019 to 31st March 2024.

2. Appendix-V of the RLDC Fees & Charges Regulations 2019 provides that POSOCO shall submit the detailed Procedure for calculation of specific metrics for the Key Performance Indicators for approval of the Commission.

3. NLDC vide its letter dated 5.07.2019 and 29.11.2019 submitted the "Detailed Procedure for calculations of specific metrics for the Key Performance Indicators".

4. The Commission has examined the detailed procedure submitted by NLDC and after incorporating suitable changes hereby approves the “Detailed Procedure for calculations of specific metrics for Key Performance Indicators 20th May 2022” which is enclosed as Annexure to this order.

5. The Detailed Procedure for calculations of specific metrics for Key Performance Indicators 20th May 2022 shall be applicable for the control period 1.4.2019 to 31.3.2024.

Sd/	**Sd/**	**Sd/**	**Sd/**
(P. K. Singh) Member	**(Arun Goyal) Member**	**(I. S. Jha) Member**	**(P. K. Pujari) Chairperson**

Annexure

Detailed Procedure

for

calculation of

Key Performance Indicators

Under

CERC (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2019 for the control period from 1.4.2019 to 31.3.2024 notified on 5th April, 2019.

20th May 2022

1. Preamble

1.1 The Central Electricity Regulatory Commission (in short, 'the Commission' or 'CERC') has specified Key Performance Indicators (KPIs) for assessment of performance of National Load Despatch Centre (NLDC) and Regional Load Despatch Centres (RLDCs) in Appendix V of the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2019 (referred hereinafter as 'the RLDC Fees and Charges Regulations 2019'). Regulation 32(3) of the RLDC Fees and Charges Regulations 2019 provides following:

"NLDC shall submit the details in regards to each Key Performance Indicator in the format specified in Appendix-V along with the methodology for approval of the Commission."

1.2 This Procedure is issued in compliance of the above and shall be applicable to RLDCs and NLDC for the control period from 1st April 2019 to 31st March 2024. The objective of this Procedure is to lay down the detailed explanation of the KPIs, specify annual targets, performance measurement, proofs of achievement and mapping of performance into marks.

1.3 All the words and expressions used in the Procedure shall have the same meaning as assigned to them in various Regulations issued by CERC.

2. Approach

2.1. The list of KPIs along with targets and formulations is summarised in Appendix-I for NLDC and Appendix-II for RLDCs. Total marks for broad categories of KPIs shall be as per the weightage provided in Appendix-V of the RLDC Fees and Charges Regulations 2019. Marks for sub-heads in Individual KPI parameters for NLDC and RLDCs shall be as per the Appendix-I and Appendix-II respectively of this Procedure. Linear pro-rata reduction formulae shall be considered for computation of performance and marks unless specified otherwise in a particular KPI formulation as per Appendix-I and Appendix-II, as applicable.

2.2. All the performance and marks shall be rounded off to three decimals.

2.3. Aggregate performance of NLDC and RLDCs shall be calculated after adding the marks scored against all KPIs out of total 1000 marks e.g. if total marks scored by NLDC in all KPI parameters is 967.912 out of 1000, performance shall be 96.791%. This aggregate performance shall be converted to percentage of Annual Charges in accordance with Regulation 32(5) of the RLDC Fees and Charges Regulations 2019.

2.4. The detailed calculations of all KPIs in MS Excel worksheet shall be submitted while filing the petition for approval of the Performance Linked Incentive.

2.5. The proofs mentioned in the respective KPI details shall also be submitted while filing the petition for approval of the Performance Linked Incentive.

2.6. An undertaking by the head of concerned RLDC or head of NLDC, as the case may be, shall be submitted along with the Petition stating that the targets claimed to be achieved and performance computed for all KPIs have been checked and are true to best of his/ her knowledge.

3. Stakeholder Satisfaction: MoU rating as per DPE (Department of Public Enterprises, Government of India)

3.1. Each year, Memorandum of Understanding (MoU) viz. agreement is signed between Ministry of Power and management of POSOCO on select parameters before the start of the year and results are evaluated after end of the year. The purpose of MoU is to measure performance of the management of POSOCO on key selected parameters against the targets agreed upon. MoU score showing the actual achievement is notified by Department of Public Enterprises.

3.2. Target Performance for this KPI shall be 100 MoU score for full marks. Same marks shall be applicable for NLDC and RLDCs.

3.3. Proof of achievement: MoU Score as notified by Department of Public Enterprises for corresponding year shall be submitted as proof.

4. Stakeholder Satisfaction: Facilitate Power System and Power Market Functioning

4.1. The following are envisaged under each category:

a) Power Market Transaction: Scheduling of short term (Collective & Bilateral) transactions as per Regulations, disbursement of power exchange charges, disbursement of STOA charges, disbursement due to curtailment or revision of STOA, issuance of RECs (Renewable Energy Certificates) and ESCerts (Energy Saving Certificates).

b) Power System Functioning: Calculation and reporting of FRC, operation of back up control centre, mock trial run under Recovery Procedure as per Grid Code, stakeholder meetings including cross border.

4.2. Power Market Transaction: Short Term Collective and Short Term Bilateral

a) The nodal agency for Collective Transactions is NLDC and for Bilateral Transactions is RLDC. NLDC or RLDC, as the case may be, are required to process the scheduling requests of Short Term Open access under different categories viz. Advance, FCFS (first come first served), Day Ahead, Contingency and collective as per the Central Electricity Regulatory Commission (Open Access in inter-State transmission) Regulations, 2008 within stipulated time.

b) The following KPIs are considered for RLDCs under the sub-head Bilateral transaction:

i. Process all applications for bilateral STOA transactions within the specified time as per the Open Access Regulations.

ii. As per clause 15.1 of the Procedure for Scheduling Short-Term Open Access in Inter-State Transmission (Bilateral Transaction), nodal RLDC shall reconcile the Short-Term Open Access Charges collected during the previous month and disburse the Transmission Charges and Operating Charges within 7 working days from the issuance of monthly Regional Energy Accounting by the respective Regional Power Committees.

iii. As per clause 15.5 of the Procedure for Scheduling Short-Term Open Access in Inter-State Transmission (Bilateral Transaction), in case of refunds arising due to curtailment or revision of transactions during the previous month, the same shall also be disbursed to the concerned Applicants by 15th day of the current month. For RLDCs, the KPI is set accordingly for STOA refund disbursement to applicants by 15th of a month.

c) The following shall be considered for NLDC w.r.t Collective Transactions as per the Procedure for Scheduling Short-Term Open Access in Inter-State Transmission (Collective Transaction):

i. As per clause 3.8 of the Procedure for Scheduling Short-Term Open Access in Inter-State Transmission (Collective Transaction), NLDC shall convey the acceptance of scheduling of Collective Transactions to Power Exchange(s) by 17:30 hrs after getting acceptance from RLDCs. Accordingly, KPI is set for NLDC to convey acceptance of scheduling of Collective Transaction to Power Exchange(s) within the specified time as per the Open Access Regulations.

ii. As per clause 9.1 of Procedure for Scheduling Short-Term Open Access in Inter-State Transmission (Collective Transaction), NLDC shall reconcile the short term open access charges collected during the previous month by the tenth (10th) day of the current month. As per clause 9.3 of the aforesaid Procedure for Collective Transaction, in case of refunds arising due to curtailment of transactions during the previous month, the same shall also be disbursed to the concerned Power Exchange by fifteenth (15th) day of the current month. Accordingly, KPI is set for NLDC for ensuring disbursement of Power Exchange charges by 15th of every month.

d) Relevant proofs shall be submitted while filing the petition for approval of the Performance Linked Incentive.

4.3. **Power Market Functioning: Renewable Energy Certificate (REC) Mechanism**

a) As per Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010, NLDC has been designated as Central Agency with followings functions: (i) registration of eligible entities, (ii) issuance of certificates, (iii) maintaining and settling of accounts, (iv) repository of transactions in certificates etc.

b) The following sub-KPIs shall be considered under this sub-category for NLDC

i. Registration of RE Generator(s)/ Distribution Licensee(s) within 15 working days of receipt of complete application or as prescribed by CERC from time to time.

ii. Issuance of REC(s) to RE Generator(s)/ Distribution Licensee(s) within 15 working days of receipt of complete application or as prescribed by CERC from time to time.

4.4. **Power Market Functioning: POSOCO as Energy Saving Certificates (ESCerts) Registry under Perform Achieve Trade (PAT) Scheme**

a) To improve energy efficiency in large energy-intensive industries, Central Government has launched Perform, Achieve and Trade (PAT) scheme under National Mission for Enhanced Energy Efficiency (NMEEE). Under PAT scheme, the quantified energy savings are converted into Energy Saving Certificates (ESCerts) which may be traded through the Power Exchanges (PX). Ministry of Power (MoP) vide order dated 05.01.2016 assigned the function of Registry of ESCerts trading to POSOCO and authorized POSOCO to establish the necessary framework to discharge the functions under PAT Scheme. CERC has notified the CERC (Energy Savings Certificates) Regulations, 2016, as per which, functions of POSOCO as Registry of ESCerts are:

- Registration of Eligible Entity,
- Maintaining records of ESCerts viz., Issuance, dealing, etc.,
- Dissemination of information,
- Assistance in development of IT Platform for ESCerts etc.
- Signing of Non-Disclosure Agreement with BEE, and others functions as per CERC directions.

b) Following activity shall be considered as KPI under this category for NLDC:

i. Registration of Designated Consumers (DC) with registry: Registration of DC with Registry is mandatory for participation in the ESCerts trading process at Power Exchanges. As per CERC approved Procedures, Registry has to register DCs within 15 working days from receipt of complete Application. Performance during any year shall be considered 100%, if all the applications received during that year have been processed within the stipulated timelines i.e. 15 working days.

c) Proof: Website link of Reports uploaded on the web-based registry shall be shall be submitted.

4.5. Power System functioning: Operation of back up control centre for NLDC and RLDCs

a) Regulation 5(4)(viii) of RLDC Fees and Charges Regulations 2019 provides operation of back up control centre as a function of NLDC and RLDCs.

b) Accordingly KPI is set for NLDC and RLDCs as - back up control centre for NLDC and RLDCs shall be operated atleast once in a year.

c) Performance Computation: The performance shall be 100% if respective back up control centre for NLDC and RLDCs have been operated atleast once in a year, else it shall be zero.

4.6. Power System functioning: Mock trial run under Recovery Procedure

a) Regulation 5.8 (b) of the Grid Code provides Mock trial runs of the procedure for different sub-systems shall be carried out at least once every six months.

b) Mock trial run of recovery procedure as per above ensures security of supply in case of any contingency.

c) Accordingly KPI is set for RLDCs as – number of mock trial runs carried out in a year as per regulation 5.8(b) of the Grid Code .

d) Performance Computation: The performance shall be computed as number of mock trial runs carried out in a year under regulation 5.8(b) of the Grid Code divided by total number of mock trial runs required to be carried out in a year under regulation 5.8(b) of the Grid Code.

4.7. Power System functioning: Calculation & Reporting of FRC

a) As per procedure for Assessment of Frequency Response Characteristic (FRC) of control areas in Indian power system, FRC is to be computed by NLDC, RLDCs & SLDCs for all events involving a sudden 1000 MW or more load/ generation loss or a step change in frequency by 0.50 Hz for each interconnection/ region/ control area's FRC. However, with the grid power number increasing over the years, FRC shall be computed for a change in frequency of 0.2 Hz.

b) FRC consists of both generator response as well as load response. FRC is calculated using the SCADA data with 10 seconds resolution. FRC is calculated for each Regional generating Entities & State control area by RLDC and region-wise by NLDC.

c) Accordingly, KPI is set for computing FRC whenever any event in the National Grid causes a frequency change of more than 0.2 Hz or load/ generation loss of more than 1000 MW within the timelines described below as per approved FRC Procedure.

d) Performance Computation: FRC shall be computed within the stipulated time frame of 3 working days from the event. The performance shall be calculated by dividing '*number of FRC events for which computations are*

done and report published within stipulated time' by total number of FRC events that required computation in a year.

e) Proofs: The complete details of FRC computation shall be posted on the respective RLDC/ NLDC website along with details viz. uploading date and time and web links shall be mentioned as proof.

4.8. Power System functioning: Stake holder meetings including cross border meetings

a) RLDCs/ NLDC conduct various meetings with the stakeholders. NLDC also convenes cross-border meetings with Nepal, Bhutan and Bangladesh on periodic basis.

b) Target is four (4) number of exclusive meetings/ workshops conducted by respective RLDC/ NLDC with the stakeholders. These counts shall not include regular meetings conducted by RPCs.

c) Proof: An undertaking by head of RLDC and NLDC stating the list of such meetings shall be submitted along with the Petition.

5. Stakeholder Satisfaction: Maintain system reliability

5.1. Minimising Frequency Deviation Index (FDI)(Maintaining frequency within the operating frequency band specified under the Grid Code):

a) RLDCs/NLDC shall put in all efforts to maintain frequency within the band specified in the Grid Code i.e. 49.90 Hz to 50.05 Hz (or any other band specified subsequently) in real time by taking necessary measures as well as regularly taking up issues in various forums like RPCs.

b) Frequency is an important parameter from the perspective of monitoring grid operations. Frequency Deviation Index is calculated as the percentage of time, the frequency was outside the specified band.

c) For this control period, target of achieving frequency within the specified band of for average 90% and above of the time in a year has been kept for achieving 100% performance.

d) Proof: Summary of relevant web links along with details of upload viz. date and time shall be submitted as proof.

5.2. Reporting of Voltage Deviation Index (VDI)

a) Voltage Deviation Index is calculated as the percentage of time Voltage was outside band defined in the Grid Code. The percentage of samples lying outside the Grid Code-specified range constitutes VDI for the station.

b) RLDC shall compute VDI for all important 400 kV & above sub-stations (220 kV & above sub-stations in case of NER). NLDC shall compute VDI for all 765 kV & above substations (400 kV & above sub-stations in case of NER).

c) Target of achieving voltage within the Grid Code-prescribed limits for average 90% and above of the time in a year.

d) Marks for these KPIs shall be as per the Appendix-I for NLDC and Appendix-II for RLDCs.

e) Proof: Summary of relevant web links along with details of upload viz. date and time shall be submitted as proof.

5.3. Maintenance Shut Down Coordination

a) As per the shutdown coordination process time allowed to NLDC for processing (approval/ denial) shut-down request is 26 hours and to RLDCs is 50 Hours (including NLDC Time). This methodology has been devised considering primarily the planned outages approved in the monthly Operation Coordination Committee (OCC) meetings of RPCs which are processed by RLDCs on D-1 basis (1 days ahead of actual day of outage) based on confirmation from the shutdown requesting agency on D-3 basis (3 days ahead of actual day of outage) and the then prevailing grid

conditions. The procedure to streamline the process of transmission outage coordination between SLDCs, RLDCs, NLDC and RPCs and Indenting Agencies was developed by NLDC in 2013 and approved in OCC forum of different regional power committees. As per the approved process, RLDCs approve the shutdown requests of inter-State transmission lines and NLDC approves the shutdown requests for inter-regional and all 765 kV and above transmission elements. RLDCs after processing the shut down requests at regional level forward the list to NLDC for impact assessment at national level. After clearance from NLDC, the final list of cleared shut down requests are intimated by respective RLDCs to the requesting agencies on D-1 (i.e. one day before the proposed date of outage).

b) As per above outage planning procedure, shutdown processing time for NLDC/RLDCs is as tabulated as follows:

List of Shut Down activity with Time

Sl No	Activity	Day	Time
1	Request of shutdown from indenting agency to concerned RLDC.	D-3	1000 hrs
2	Forwarding request of shutdown requiring NLDC approval from RLDC to other concerned RLDCs and NLDC (along with the recommendations and study result)	D-2	1000 hrs
3	Comments of other RLDCs or NLDC	D-2	1600 hrs
4	Approval or Rejection of Request	D-1	1200 hrs

As per above table:
Shutdown Processing Time for NLDC is: Sr.No(4)- Sr.No(2)= 26hrs

Shutdown Processing Time for RLDC is: Sr.No(4)- Sr.No(1)= 50hrs

c) Time allowed to NLDC for approval of the shut down requests is 26 hours and to RLDC is 50 hours (including NLDC time). Performance shall be computed as number of shutdown requests processed within stipulated time divided by total no. of requests received.

d) Proof: List of outages along with details shall be uploaded on website and weblinks for all months shall be submitted as proof.

6. Stake Holder Satisfaction: Website Availability

6.1. The availability of website (RLDC, NLDC/ POSOCO CC) and other important web-based applications being used directly by stakeholders viz. Web-based Scheduling System (RLDC/ NLDC), Web-based STOA (RLDC), FOLD & REC Site (NLDC/ POSOCO CC) is very critical. To ensure availability, RLDCs/ NLDC maintain dedicated redundant hardware infrastructure connected to redundant ISP links.

6.2. Each web-application server generates its server logs, which automatically maintains the list of activities it performed. Thus, any instant of server failure (if any) is captured through these server logs. These system-generated logs are used for calculation of monthly availability of the established infrastructure of all web-applications including performance of the software.

6.3. Computation of monthly availability shall be weighted average of monthly availability of each web services viz. website (RLDC, NLDC/ POSOCO CC), Web-based Scheduling System (RLDC/NLDC), SCED (NLDC), Web-based STOA (RLDC), FOLD (NLDC/POSOCO CC) & REC Site (NLDC/POSOCO CC). Target availability of these websites shall be 100% and the weightage of main websites of NLDC/CC and RLDC shall be 50% and weightage for rest of the websites shall be equally distributed.

6.4. Discontinuation of service of the established infrastructure (as stated above) resulting into unreachability of the web applications from outside and within the RLDC/ NLDC LAN shall be considered as period of non-availability. Depending

upon the aggregate availability of website in minutes in a particular month, month-wise percentage availability shall be calculated as per the following:

a) Total duration covered in minutes (M) = No. of days in the month x 24 x 60

b) Total outage of service (O) = Duration of outage in minutes

c) % Availability for the month (A_{m1}) = [(M-O)/M]* 100%

f) % Annual Availability (A) = Average (A_{m1}, A_{m2}, A_{m3}, ..., A_{m12})

Then, percentage average annual availability shall be proportionately converted to marks scored.

6.5. Proof of achievement: Each RLDC shall maintain the server logs as explained above for verification. An undertaking by the head of RLDC and NLDC stating the website availability shall be submitted along with the Petition.

7. Stake Holder Satisfaction: Information Dissemination

7.1. Available Transfer Capability/ Total Transfer Capability

a) As per CERC (Measures to relieve Congestion in real time operation) Regulation, 2009, the Available Transfer Capability (ATC), Total Transfer Capability (TTC) and Transmission Reliability Margin (TRM) along with the details of basis of calculations has to be put up on the website of NLDC and RLDC at least three months in advance. Further the said Regulations also provides requirement of revision of TTC/ATC in case of change in system conditions. Accordingly following KPIs are set for publication of ATC/TTC

A. TTC/ATC in advance

b) RLDC is required to send the ATC information to NLDC by 26th day of the month for the upcoming third month. NLDC shall post on the website within next two days viz. 28th day or as specified from time to time. NLDC is also required to upload revised ATC/TTC information within one hour in case of any event in the Grid.

c) Performance of RLDCs shall be measured on the basis of actual number of reports/ information sent to NLDC by 26th day of the month. Performance of NLDC shall be measured on the basis of actual number of reports posted on website by 28th day of the month.

d) The performance shall be converted into marks after dividing the number of ATC information published within time/ target number of reports and multiplying the same by maximum marks.

e) Proof: The summary of website links along with upload details viz. date and time of upload.

B. Revision in TTC/ATC : For NLDC

a) In case already published TTC/ATC is required to be revised due to change in system conditions or any contingency, the same shall be revised and published by NLDC within an hour of such an event.

b) The performance shall be converted into marks after dividing the number of ATC information published within time/ target number of revisions and multiplying the same by maximum marks.

c) Proof: The summary of website links along with upload details viz. date and time of upload.

7.2. Transactions Scheduled

a) As per Regulation 6.5.29 of the Grid Code, *"After the operating day is over at 2400 hours, the schedule finally implemented during the day (taking into account all before-the-fact changes in despatch schedule of generating stations and drawal schedule of the States) shall be issued by RLDC. These schedules shall be the datum for commercial accounting. The average ex-bus capability for each ISGS shall also be worked out based on all before-the-fact advice to RLDC"*

b) The final schedules as described in clause 7.2(a) above shall be made available to the constituents within one working day. Accordingly, target is fixed as the number of days within which the compliance is ensured.

c) Performance shall be computed by dividing number of days for which corrected implemented schedule is uploaded within stipulated time by total number of days in corresponding year.

d) Proof: The summary of website links showing details of correction along with upload details viz. date and time of upload shall be submitted as proof.

8. Stake Holder Satisfaction: Preparation of accounts

8.1. Inter Connection Meter Error Reporting

a) Interconnection meter is used for accounting and billing of electricity, connected at the point of interconnection between electrical systems of generating company, licensee and consumers, directly connected to the Inter-State Transmission System.

b) As per the Grid Code, RLDCs are responsible for meter data processing. While validating the processed data, if RLDC observes any error in the readings of main meter with respect to check/ standby meter, the same is reported to RPC which is the accounting agency while furnishing the weekly injection/ drawal of the entities computed based on SEM data. The above information i.e. interconnection meter error report and computed injection/ drawal of entities are submitted to RPC Secretariat by Thursday of every week for previous week and the same is also is published on the website of RLDCs for checking/ verifications of regional entities. Accordingly, for RLDCs, KPI is set as Thursday for reporting meter data error.

c) The possible number of reports sent to RPC Secretariat and website publications in a year is 52. Performance shall be computed as per the following formulae:

Actual number of reports submitted to RPC Secretariat by Thursday of every week / target number of reports * maximum marks.

d) Proof: Summary of website links shall be submitted as proof.

8.2. Ancillary Services

a) As per the detailed procedure for Ancillary Services Operation, RLDCs shall furnish actual net injection/ drawl of concerned regional entities, 15 minute-wise, based on the interface meter data. The above data along with the processed data of all interface meters and the schedules shall be forwarded by the concerned RLDC to the respective RPC Secretariat on a weekly basis by Thursday.

b) NLDC shall issue a Monthly Report covering details of region-wise energy despatch in ancillary services, payments to be made for Regulation-UP, payment to be received for Regulation-Down from RRAS Provider, reasons for dispatch or withdrawal of ancillary service etc.

c) Weekly data submission to RPC by Thursday is considered as target for RLDC and preparation of Monthly report by 25th of next month is considered for NLDC.

d) The performance shall be computed by dividing the actual number of reports submitted within the timeframe specified above by target number of reports. In case performance for this KPI is less than 50%, marks shall be zero.

e) Proof: An undertaking by the head of RLDC stating the details of weekly data to RPC shall be submitted along with the Petition. Web-links of monthly reports shall be submitted as proof by NLDC.

8.3. AGC

a) Presently AGC is implemented in pilot phase in India. Weekly data submission to RPC by Thursday is considered as target for RLDC where AGC is implemented and preparation of Monthly report by 25th of next month is considered for NLDC.

b) The performance shall be computed by dividing the actual number of reports submitted within timeframe specified above by target number of reports.

c) Proof: Intimation details of weekly data to RPC shall be submitted as proof by RLDC. Web-links of monthly reports shall be submitted as proof by NLDC.

9. Financial Prudence: Variance in Capex Utilisation

9.1 Monitoring of CAPEX/ REPEX utilisation is important for an organisation. However, POSOCO being a knowledge-based organisation, its capital expenditure plans are based more on office infrastructure requirements and up-gradation rather than business growth. Due diligence in parameterisation of performance monitoring based on meeting CAPEX/REPEX targets are being given.

9.2 The figures for CAPEX/ REPEX approved in RLDC Fees & Charges order against petitions filed by each RLDC/ NLDC for the control period from FY 2019-20 to FY 2023-24 shall be considered as targets. The figures of the actual expenditure incurred as per the balance sheet shall be taken as the actual performance.

9.3 Target 'T' for 100% performance is considered as 15% absolute variance. For variance above 15%, there shall be reduction of 1% in performance for every 1% increase in variance.

9.4 Proof: Relevant extracts of Balance sheet and Profit and Loss account shall be submitted as proof.

10. Financial Prudence: Statutory Compliance Audits

10.1. POSOCO as a company, has to comply with applicable provisions of the Companies Act, 2013. Following compliance audits for the respective financial year shall be complied:

i. Internal Audit (Phase I)

ii. Internal Audit (Phase II)

iii. Physical Verification Audit

iv. Statutory Audit

10.2. Target is specified as four (4) numbers of aforesaid audits for the financial year within the timeline as per the company policy. The performance shall be considered 100% if actual number of audits complied within the timeline are four (4). Linear pro-rata reduction in marks shall be done in case the number of audits done is less than four (4) as per the formula specified in Appendix I and II for NLDC and RLDC respectively.

10.3. Proof: A certificate of compliance signed by head of RLDC and NLDC/CC shall be submitted.

11. Learning and Growth: New Technology Adoption / R & D

11.1. POSOCO being a knowledge-based organisation, can choose any or combination of the following measures to achieve the objective of this KPI:

a) Adoption of latest technologies available in the market,

b) R & D experiment/developments using in house talents,

c) Collaborate with Institutions,

d) Collaborate with Technology partners,

e) Collaboration with IMD and other weather partners,

f) The following shall also be considered as New technology adoption:

i. Designing the infrastructural requirement as well as implementation of new automations and/or replacement of existing automation infrastructure,

ii. Software development,

iii. IT infrastructure development,

iv. Installation, adoption of latest data acquisition process like AMR etc.,

v. Adoption of technologies like IoT (internet of things), AI (artificial intelligence) or Blockchain,

vi. Advanced IT Security implementation,

vii. Adoption of technological advancement in information storage and dissemination (like creation of App / Interactive web portal etc.)

11.2. KPI can be achieved by individual RLDCs/ NLDC. Group of RLDCs/ NLDC can also work on or adapt the same project.

11.3. Target for each year is adoption of one new technology/ R&D experiment (developments).

11.4. The performance shall be computed as 100% if actual number of adoption of new technologies is one or more. If no new technology is adopted, the performance and marks for this KPI shall be zero.

11.5. Proof: A signed certificate indicating the details of new technology adaption/ R&D signed by head of RLDC or NLDC, as the case may be, shall be submitted as proof.

12. Learning and Growth: Lessons learnt and knowledge dissemination by way of data intensive reports

12.1. POSOCO is knowledge-based organisation with lot of information wealth. For the betterment of power system, it is very important as well as essential to disseminate the knowledge in the form of reports/ papers. RLDCs/ NLDC are encouraged to publish reports relevant to the power sector. POSOCO Reports are collaborative efforts involving each RLDC and NLDC. Some of the sample reports could be effect of solar eclipse, ramping requirement, load pattern analysis, experience of WAMS and any other subject pertaining to power system.

12.2. KPI can be achieved by individual RLDCs/ NLDC. Even group of RLDCs/ NLDC can work on or adapt the same project.

12.3. Target is specified as two reports. The performance shall be considered 100% if actual number of reports uploaded is two or more.

12.4. Proof: The details of website link in case if report is available on the public domain or the executive summary/ summary of report shall be submitted as proof.

13. Learning and Growth: Adequacy of HR - % of certified operators among eligible operators

13.1. The certification framework was introduced in 2011 based on recommendations of G.B. Pradhan Committee Report which called for "Introduction of a system of 'certification' of System Operators by an independent body such as the NPC/NPTI" and "Establishment of an Institute for training of system operators". National Power Training Institute (NPTI) was entrusted with the responsibility of training initially.

13.2. Accordingly, a framework was developed for System Operators from the States and POSOCO for training and certification, with NPTI as the certifying agency. The framework provides for Basic Level, Specialist Level and Management Level Courses. The examinations are held online on an all-India basis. Basic Level Certification is a foundation level exam where all System Operators in the country can appear, whereas, specialist level exams focus on a particular area of expertise. Validity duration of both the certificates is three years. Eligible System Operators are required to have at least one valid certificate to be considered as certified.

13.3. "No. of Employees Certified" is number of eligible employees who have at least one valid certificate (either basic level or specialist level) on the date specified.

13.4. Target for this KPI shall be minimum 80% certified operators among the eligible employees for 100% performance under this KPI.

13.5. Proof: The list of certified employees along with period of validity of certificate signed by the head of RLDC or NLDC, as the case may be, shall be submitted as proof.

14. Learning and Growth: Capacity Building/No. of man-days per year per eligible employee

14.1. Regulation 24(10) of the RLDC Fees and Charges Regulation 2019 provides as under:

".....All efforts shall be made to ensure that minimum seven days training per employee per annum is imparted as per the National Training Policy."

14.2. The employee who attended minimum 7 days training/ workshop/ seminar/ symposium shall be counted as trained employee for the purpose of computation. Eligible employees are the employees who are on rolls of the organisation and posted in the respective RLDCs/ NLDC as on 31st March of the year.

14.3. Target performance for this KPI shall be 100% i.e. 100% of the eligible employees of RLDC/ NLDC should get minimum 7 days training/ workshop/ seminar/ symposium for 100% performance and full marks. In case of actual performance below 100%, there shall be a decrease of 1% in marks obtained for every 2% decrease in actual performance for this KPI i.e. if 98% employees get training for 7 days or more, performance shall be 99%.

14.4. Proof of achievement: An undertaking shall be submitted by head of RLDC or NLDC stating the total no. of eligible employees and actual no. of eligible employees who attended minimum 7 days training/ workshop/ seminar/ symposium.

15. Learning and Growth: Capacity Building: FOLD Meetings/Workshops

15.1. Forum of Load Despatchers of India (FOLD) strives to achieve its vision through technical cooperation, knowledge sharing, regular interaction, active collaboration, mutual respect, cooperation, consensus building, and international bench-marking and promoting ethical, non-discriminatory and fair practices. NLDC is the FOLD Secretariat. Hence, organising workshops/ meetings of FOLD is vital for development of Load Despatch Centres (LDCs).

15.2. Target is 6 workshops/ meetings per year for 100% performance and full marks. The performance shall be computed by dividing actual number of meetings/ workshops by target number of meeting/ workshops (6).

15.3. Proof of achievement: The details of meetings/ workshop along with link to minutes, if any, shall be submitted as proof.

16. Internal Process: Availability of Decision Support System – SCADA

16.1. SCADA systems installed in RLDCs and NLDC is a collection of software and hardware modules which provide essential functions like (i) real time data reporting from field, (ii) real time data exchange between various Load Despatch Centres, (ii) historical data archiving & retrieving, (iii) network analysis studies, (iv) Grid dispatcher training, (v) document management system, and (vi) MIS reporting.

The SCADA system at NLDC acquires real time data from RLDCs through dedicated communication links either on communication network implemented through Unified Load Despatch & Communication Scheme (ULDC) or through POWERTEL's communication network provided by the CTU (Central Transmission Utility).

Similarly, the SCADA system at RLDC acquires real time data from Remote Terminal Unit (RTU)/ Sub-Station Automation System (SAS) for central sector stations and IPP stations installed in respective Region through ULDC communication network (in case, link is not available, POWERTEL's communication network is used). Real time data from various SLDCs of the Region is fetched through ICCP protocol on dedicated communication links provided through ULDC network with redundancy and communication network under POWERTEL network of POWERGRID. Real time data is fetched from RLDCs also for display in SLDCs.

Main reasons of outages of real-time data are listed below:

i. Failure of critical SCADA servers (hardware level),
ii. Failure of critical SCADA applications (software level),
iii. Communication failure,
iv. RTU/SAS failure

16.2. Critical infrastructure of SCADA is redundant at server and network level to ensure standby operation and availability in case of any contingency. Further, logistics infrastructure like UPS Power supply, backup power source are also designed redundant to achieve un-interrupted service in N-1 scenario. In case

data at main control centre is not available, back-up control centre is utilized to visualize the real-time data.

16.3. **Methodology for calculation of SCADA system availability:** Both main and back-up SCADA systems have two SCADA servers working in redundant mode with one of the servers in master role and the other in standby role. Consequently, services of SCADA system are considered available when at least one of the redundant servers is up. In the event of failure of both the SCADA servers at Main control centre (CC), monitoring of regional grids can be done through SCADA system of Backup control centres. Accordingly, for the purpose of computation of SCADA availability, the status of main and standby SCADA servers at Main control centre and Backup control centres is checked. If any one of the servers is working at any instant and real time SCADA data is available to the control room of NLDC, RLDC and SLDC in case of RLDCs, the SCADA system is considered to be available.

16.4. The SCADA system at Main control centre and Backup control centres is checked for healthiness on daily basis and any functional/ hardware failure is recorded. Loss of SCADA system to control room is categorised as non-availability if due to any fault/ malfunction real time grid operations get affected. Downtime is recorded for the period for which the fault/ malfunctioning persists.

The data outage due to failure of communication network shall be considered under SCADA availability calculation. The downtime for all such incidents reported in a month are accumulated to arrive at the total system downtime in that month. Based on month-wise availability in terms of hours & percentage, KPI is calculated.

The same is compiled for computation of monthly/ quarterly availability of the SCADA system.

Formula for monthly system availability computation is as follows:

% Monthly system availability = (THM -D)*100/THM
Where,
THM = Total no. of hours in that Month

D = Downtime recorded in that Month (In hours)

16.5. Target for this KPI shall be annual availability of 99.95%.

16.6. Proof: The availability certificate signed by the RLDC/ NLDC shall be submitted as proof.

17. Internal Process: Availability of infrastructure and amenities

17.1. The CABIL (Capacity Building of Load Despatch Centres) report mentions many infrastructure and amenities to be provided in LDCs (Load Despatch Centres). Considering the present infrastructure available with RLDCs/ NLDC, the following infrastructure and amenities are considered for monitoring the performance under this KPI:

1. Physical security systems,
2. Pure drinking water,
3. Video conference,
4. Canteen

17.2. Computation of Performance: The KPI Marks should be based on the availability of these infrastructure facilities and amenities. Accordingly, the individual performance for items from Sl. No. 1 to 4 is computed using the following formulae:

(No. of days the particular facility or infrastructure is available i.e. in working condition)/ (No. of days in the corresponding year)

17.3. The performance under this sub-category "Availability of infrastructure and amenities" shall be average of all the individual performance computed above.

17.4. Proof: The copy of certificate signed by head of RLDC or NLDC, as the case may be, shall be submitted as proof.

18. Internal Process: ISO Certification

18.1. POSOCO has implemented the ISO standards in various processes and activities under Integrated Management System (IMS) and shall strive for continuous

improvement in various processes of the organisation. Details of the four standards are given below:

a. Quality Management System (ISO 9001:2015),
b. Environment Management System (ISO 14001:2015)
c. Occupational Health and Safety Management System (OHSAS 45001:2018)
d. Information Security Management System (ISO 27001:2013)

18.2. As per IMS Certification, continuing Surveillance Assessment shall be done on yearly basis with regard to implementation of the four ISO Standards and to identify non-conformity, if any.

18.3. The performance for this KPI shall be computed by dividing number of days with active certification by number of days in the corresponding years.

18.4. Proof: The copy of certificates along with its validity of certificate shall be submitted as proof.

19. Internal Process: Process Documentation

19.1. **Black Start Restoration Document:** This document details the restoration procedure from the total/ partial Black out condition w.r.t a Region/ State. The document is to be updated annually.

19.2. **Reactive Power Document:** This document details the methods of voltage control/ tools available for voltage control in the region. This document is to be uploaded on the respective RLDC/NLDC website. The document is to be updated annually.

19.3. Target: The target has been set in line with the existing practice. Black start Restoration Document shall be updated by 31st January of every year. Reactive Power Document shall be updated by 31st December of every year.

19.4. Proof: The Reactive Power Document is to be uploaded on the respective RLDC/ NLDC website. The Black Start Restoration Document is to be uploaded on the respective RLDC/ NLDC website with password protection. The details such as

when the updated document is uploaded on website and web links of the documents shall be submitted as proofs.

20. Removal of Difficulties

20.1. In case of any difficulty in implementation of this Procedure, the same may be reviewed by POSOCO with the approval of the Commission. In case the Regulations that have been referred to in this Procedure undergo amendment or are re-enacted after issuance of this Procedure, POSOCO may seek approval of the Commission for review of KPIs if there is material change due to such amendment or re-enactment.

National Load Despatch Centre KPIs						Appendix-I
	Parameter in Regulation	**Annual Target**	**Maximum Marks (Y)**	**Performance/Marks obtained**	**Example Achievement**	**Example Marks obtained ('P')**
(A) Stake holder satisfaction (Over-all weightage 40%)	MoU Rating as per DPE	Score in MoU Rating	40	P=(A/100)*40 A: MoU Score as per DPE out of 100	A=91.06	36.424
	Power Market transaction: Collective	Acceptance of scheduling of Collective Transaction to Power Exchange (s) within the specified time as per the Open Access Regulations	20	P= A/B*20 A: Number of days in which scheduling acceptance given within time specified B: Target days (365/366, as applicable) In case A is less than 300 days, marks shall be zero	A=350	19.17
		Disbursement of Power Exchange Charges by 15th of every month	10	P= A/B*10 A: Number of months in which disbursement made in-time B: Target months (12)	A=11	9.17
	Power Market transaction: REC	Registration of RE Generator(s)/ Distribution Licensee(s) within 15 days of receipt of application	10	P= A/B*10 A: Number of applications processed with in specified time B: Number of applications received In case performance is less than 50%, marks shall be zero	A=23, B=25	9.200
		Issuance of REC(s) to RE Generator(s)/ Distribution Licensee(s) within 15 days of receipt of application	10	P= A/B*10 A: Number of applications processed with in specified time B: Number of applications received In case performance is less than 50%, marks shall be zero	A=19 B=20	9.500

	Power Market transaction: ESCerts	Registration of Designated Consumers (DC) with registry within 15 days of receipt of application	10	P= A/B*10 A: Number of applications processed with in specified time B: Number of applications received	A=23 B=25	9.200
	Power System Functioning: operation of backup control center for NLDC	Conduct operation from backup control centre for NLDC	20	P= A/B*20 A: Total number times backup was operated B: Target number operation of backup control center = 1	A=1	20.000
	Power System Functioning: Calculation & reporting of FRC	FRC events computation and publication of report be done within three (3) working days from the event	20	P= A/B*20 A: No. of FRC events for which computations are done and report published within stipulated time from the event B: No. of FRC events that required computation	A=40 B=40	20.000
	Power System Functioning: Stakeholder meetings including cross border	Conduct four (4) number of stakeholder meetings	20	P= A/B*20 A: Total number of meetings conducted B: Target number of meetings = 4	A=3	15.000

	Maintain system reliability: FDI	Maintain average 90% of the time frequency within band prescribed in IEGC (Average FDI = less than equal to 10%)	20	P= IF(A>= 90%, 100, (100-(90- A))/100*20 A= 100- Annual Average FDI Target = Average FDI 10% or less P shall be 0 if A is <=50%	A=85	19.000
	Maintain system reliability: VDI					
		Maintain average 90% of the time voltage within band prescribed in IEGC (Average VDI = less than equal to 10%)	40	P= IF(A>= 90%, 100, (100-(90- A))/100*20 A= 100- Annual Average VDI Target = Average VDI 10% or less P shall be 0 if A<=50%	A=90	40.000
	Maintenance shutdown coordination	Processing (approval/denial) all shut down requests within 26 hours	20	P= A/B*20 A: Number of requests processed within stipulated time B: Total number of shutdown requests received in year In case more than 10% of requests are processed in more than the stipulated time limit, marks shall be zero	A=127 B=130	19.538
	Website Availability	Maintain 99.95% availability NLDC website, Web based Scheduling system, FOLD and REC websites	40	P= IF (A>=99.95, 100, (100-(99.95-A))/100*40 A= Weighted Average monthly performance of 4 websites. Monthly Performance= (M-O)/M M: Minutes in a month (43800) O: Total minutes of outage i.e. non-availability in month	A=99	39.620

	Information disseminatio n: ATC/TTC	Upload report on website by 28th of every month	20	P= A/B*20 A: Number of reports uploaded within stipulated time B: Target = 12 reports In case A is less than 6, Marks shall be zero	A=11 B=12	18.33
	Information disseminatio n: Revision of ATC/TTC	Upload revised ATC/TTC within 1 hour of the event	20	P= A/B*20 A: Number of reports uploaded within stipulated time B: Target = no of revisions required In case A is less than 6, Marks shall be zero	A=11 B=12	18.33
	Preparation of accounts: Ancillary Services	Upload report on website by 25th of every month	40	P= A/B*40 A: Number of reports uploaded within stipulated time B: Target = 12 reports In case A is less than 6, Marks shall be zero	A=12 B=12	40.000
	Preparation of accounts: AGC	Upload report on website by 25th of every month	40	P= A/B*40 A: Number of reports uploaded within stipulated time B: Target = 12 reports In case A is less than 6, Marks shall be zero	A=12, B=12	40.000
Sub-Total			**400**			**382.489**
(B) Financial Prudence (Over-all weightage 20%)	Variance in Capex Utilization	Minimum variance (+/-) of actual CAPEX from CAPEX as allowed by CERC	80	P= IF(V<=15, 100, 100-(85-(100-V)))/100*80 V= Mode(A-B)/B*100 A: Actual Expenditure incurred B: CAPEX approved by CERC Target= 15% or less Variance	V=20.45	75.640

	Statutory compliance – Audits	Compliance of following Audits: i. Internal Audit (Phase I) ii. Internal Audit (Phase II) iii. Physical Verification Audit iv. Statutory Audit	120	P= A/B*120 A: Number of Audits complied during the year within time Target (B) = 4 Audits	A=4	120
Sub-Total			**200**			**195.64**
(C)Learning & Growth (Over-all weightage 20%)	New technology adoption / R&D	Adoption of one (1) new technology/R&D experiment in a year	60	P= IF (A>=B, 60,0) A: number of new technologies adopted B: Target number (1)	A=1	60
	Lessons learnt and knowledge dissemination by way of data intensive reports	Publish two (2) reports e.g. report on effect of solar eclipse, ramping requirement, load pattern analysis etc.	60	P= IF (A>=B,60, IF(A=1, 30, 0)) A: Number of reports released B: Target number (2)	A=3	60
	Adequacy of HR - % of certified operators among eligible operators	80% or more certified operators among eligible employees	40	P= IF (A>= 80, 100, 100-(80-A))/100*40 A= No. of employees certified as on last date of the financial year/No. of employees eligible for certification as on last date of the financial year*100	A=75%	38

	Capacity Building: No. of man-days per year per eligible employee	100% employees get minimum 7 days training	20	P= {100-(100-A)/2}/100*20 A= Percentage no. of employees trained for more than or equal to mandated 7 days as on last date of the financial year.	A=80%	18
	Capacity Building: FOLD Meetings/Workshops	Hold 6 meetings/Workshops for sharing best practices among LDCs	20	P= A/B*20 A: Number of meetings/workshops conducted B: Target = 6 meetings/workshops	A=5, B=6	16.667
Sub-Total			**200**			**192.667**
(D) Internal Process (Over-all weightage 20%)	Availability of Decision Support System – SCADA	Maintain 99.95% availability of SCADA	80	P= IF (A>=99.95, 100, (100-(99.95-A))/100*80 A= Average of monthly performance Monthly Performance= (M-D)/M M: Hours in a month D: Downtime in hours In case Monthly Performance of any month is 75% or below, Marks shall be zero	A=99.99 %	80
	Availability of infrastructure and amenities	Maintain continuous availability of at least 4 no. of services (Physical security systems, Pure drinking water, Video conference, Canteen)	60	P= A/B*60 A= Number of days particular facility/infrastructure available in working condition) B= No. of days in the corresponding year	A=350	57.534

	ISO Certification	Active certification in 4 ISO standards	20	P= A/B*20 A= Number of ISO standards that are active for all days in a year B=Number of ISO standards (4)	A= 4, B=4	20
	Process Documentation – Black Start, Reactive Power	Update Black Start Procedure by 31st January every year and Update Reactive Power Document by 31st December every year	40	P= IF(A=2,40,IF(A=1,20,0)) A= Number of documents updated and uploaded within stipulated time.	A=2	40
Sub-Total			**200**			**197.534**
Total Marks			**1000**			**968.330**
Performance of NLDC= Marks Obtained (P)/ Max. Marks *100 in %					**96.833**	

Regional Load Despatch Centre KPIs						Appendix-II
	Parameter in Regulation	**Annual Target**	**Maximum Marks (Y)**	**Performance/ Marks obtained**	**Example Achievement**	**Example Marks obtained (P)**
(A) Stake holder satisfaction (Over-all weightage 40%)	MoU Rating as per DPE	Score in MoU Rating	40	P=(A/100)*40 A: MoU Score as per DPE out of 100	A=91.06	36.424
	Power Market transaction: Bilateral	Processing of scheduling of bilateral Transaction within the specified time as per the Open Access Regulations, 2008	60	P= A/B*60 A: Number of applications which were processed within time specified B: Target no. of applications In case performance is less than 50%, marks shall be zero	A= 90 B= 100	54
		Disbursement of STOA charges within 7 working days from issuance of monthly Regional Energy Accounting every month	10	P= A/B*10 A: Number of months in which OA charges were disbursed in-time B= 12 Months	A=12	10.000
		Refunds due to curtailment or revision of STOA transactions during previous month by 15th of every current month	10	P= A/B*10 A: Number of months in which refunds due to curtailments were disbursed in-time B= 12 Months	A=12	10.000
	Power System Functioning : operation of backup control center for RLDC	Conduct operation from backup control centre for RLDC	10	P= A/B*10 A: Total number times backup was operated B: Target number operation of backup control center = 1	A=1	10.000

	Power System Functioning : Calculation & reporting of FRC	FRC events computation and publication of report be done within three (3) working days from the event for all such events	10	P= A/B*10 A: No. of FRC events for which computations are done and report published within stipulated time from the event B: No. of FRC events that required computation	A=40, B=40	10.000
	Power System Functioning : Mock trial run of system as per Grid Code	Mock trial run of identified system to be done in year as per provisions of Grid Code	10	P= A/B*10 A: No. of systems on which mock trial run has been done in a year B: No. of systems on which mock trial run was to be done as per Grid Code	A=40 B=40	10.000
	Power System Functioning : Stakeholder meetings	Conduct four (4) number of stakeholder meetings	10	P= A/B*10 A: Total number of meetings conducted B: Target number of meetings = 4	A=2	5.000
	Maintain system reliability: FDI	Maintain average 80% of the time frequency within band prescribed in IEGC (Average FDI = less than equal to 20%)	20	P= IF(A>= 90%, 100, (100-(90- A))/100*20 A= 100- Annual Average FDI Target = Average FDI 10% or less P shall be 0 if A<=50%	A=85%	19.000
	Maintain system reliability: VDI					

		Maintain average 90% of the time voltage within band prescribed in IEGC (Average VDI = less than equal to 10%)	40	P= IF(A>= 90%, 100, (100-(90- A))/100*40 A= 100- Annual Average VDI Target = Average VDI 10% or less P shall be 0 if A<=50%	A=90%	40.000
	Maintenance shutdown coordination	Processing (approval/denial) all shut down requests within 50 hours (including NLDC time)	20	P= A/B*20 A: Number of requests processed within stipulated time B: Total number of shutdown requests received in year In case more than 5 requests are processed in more than stipulated , Marks shall be zero	A=127, B=130	19.538
	Website Availability	Maintain 99.95% availability of RLDC website, Web based Scheduling system and Web based STOA websites	40	P= IF (A>=99.95, 100, (100-(99.95-A))/100*40 A= Weighted average monthly performance of 3 websites. Monthly Performance= (M-O)/M M: Minutes in a month (43800) O: Total minutes of outage i.e. non-availability in month	A=99%	39.620
	Information disseminati on: ATC/TTC	Submission of report/information to NLDC by 26th of every month	20	P= A/B*20 A: Number of reports/information submitted to NLDC within stipulated time B= Target 12 reports In case A is less than 6, Marks shall be zero	A=12	20.000
	Information disseminati on: Transaction s scheduled	Upload corrected implemented schedule of every day within one (1) working days	20	P= A/B*20 A: Number of days for which corrected implemented schedule is uploaded within stipulated time B: Target = 365 days In case A is less than 300 days, marks shall be zero	A=360	19.726

	Preparation of accounts: Interconnection meter error reporting	Reporting interconnection meter error to RPC by Thursday of every week	30	P= A/B*30 A: Number of weeks for which the interconnection meter error is reported within stipulated time B: Target = 52 Weeks In case A is less than 26, marks shall be zero	A=51	29.423
	Preparation of accounts: Ancillary Services	Submit data to RPC by Thursday every week	30	P= A/B*30 A: Number weeks for which Ancillary Services data is submitted to RPC by Thursday B: Target = 52 Weeks In case A is less than 26, marks shall be zero	A=50	28.846
	Preparation of accounts: AGC	Submit data to RPC by Thursday every week	20	P= A/B*20 A: Number weeks for which AGC data is submitted to RPC by Thursday B: Target = 52 Weeks In case A is less than 26, marks shall be zero	A=51	19.615
Sub-Total			**400**			**381.193**
(B) Financial Prudence (Over-all weightage 20%)	Variance in Capex Utilization	Minimum variance (+/-) of actual CAPEX from CAPEX as allowed by CERC	80	P= IF(V<=15, 100, 100-(85-(100-V)))/100*80 V= Mode(A-B)/B*100 A: Actual Expenditure incurred B: CAPEX approved by CERC Target= 15% or less Variance	V=20.45 %	75.640

	Statutory compliance – Audits	Compliance of following Audits: i. Internal Audit (Phase I) ii. Internal Audit (Phase II) iii. Physical Verification Audit iv. Statutory Audit	120	P= A/B*120 A: Number of Audits complied during the year Target (B)= 4 Audits	A=4	120.000
Sub-Total			**200**			**195.640**
(C)Learning & Growth (Over-all weightage 20%)	New technology adoption / R&D	Adoption of one (1) new technology/R&D experiment in a year	60	P= IF (A>=B, 60,0) A: number of new technologies adopted B: Target number (1)	A=1	60.000
	Lessons learnt and knowledge disseminati on by way of data intensive reports	Publish two (2) reports e.g. report on effect of solar eclipse, ramping requirement, load pattern analysis etc.	60	P= IF (A>=B,60, IF(A=1, 30, 0)) A: Number of reports released B: Target number (2)	A=3	60.000
	Adequacy of HR - % of certified operators among eligible operators	80% or more certified operators among eligible employees	40	P= IF (A>= 80, 100, 100-(80-A))/100*40 A= No. of employees certified as on last date of the financial year/No. of employees eligible for certification as on last date of the financial year*100	A=75%	38.000
	Capacity Building: No. of man-days per year per eligible employee	100% employees get minimum 7 days training	40	P= {100-(100-A)/2}/100*40 A= Percentage no. of employees trained for more than or equal to mandated 7 days as on last date of the financial year	A=80%	36.000
Sub-Total			**200**			**194.000**

(D) Internal Process (Over-all weightage 20%)	Availability of Decision Support System – SCADA	Maintain 99.95% availability of SCADA	80	P= IF (A>=99.95, 100, (100-(99.95-A))/100*80 A= Average of monthly performance Monthly Performance= (M-D)/M M: Hours in a month D: Downtime in hours In case Monthly Performance of any month is 75% or below, Marks shall be zero	A=99.99	80.000
	Availability of infrastructure and amenities	Maintain continuous availability of at least 4 no. of services (Physical security systems, Pure drinking water, Video conference, Canteen)	60	P= A/B*60 A= Number of days particular facility/infrastructure available in working condition) B= No. of days in the corresponding year	A=350	57.534
	ISO Certification	Active certification in 4 ISO standards	20	P= A/B*20 A= Number of ISO standards that are active for all days in a year. B=Number of ISO standards (4)	A= 4, B=4	20.000
	Process Documentation – Black Start, Reactive Power	Update Black Start Procedure by 31st January every year and Update Reactive Power Document by 31st December every year	40	P= IF(A=2,40,IF(A=1,20,0)) A= Number of documents updated and uploaded within stipulated time.	A=2	40.000
Sub-Total			**200**			**197.534**
Total			1000			968.367
Performance of RLDC= Marks Obtained (P)/ Max. Marks *100 in %					96.837	

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